

## **Regional HIV/AIDS Epidemiologic Profile of Western HSR, Massachusetts: 2012**

### **Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data**

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Diseases, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases who were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2012, this resulted in the removal of 2,924 HIV/AIDS cases, of which 808 have died and 2,116 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location of diagnosis, is the basis for MDPH service planning. This change is partially a result of increased activities required by the Centers for Disease Control and Prevention (CDC) for de-duplication among states in an effort to identify cases that are counted multiple times in the National HIV/AIDS Surveillance System. The cases are assigned to the state that reports the earliest date of AIDS diagnosis if available. If the case has not progressed to AIDS, the case is assigned to the state with the earliest HIV diagnosis date. Please note that all previous HIV/AIDS fact sheets, data reports and presentations include cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual exposure mode category for males; those cases have been reassigned to the no identified risk (NIR) exposure mode category. The presumed heterosexual exposure mode category was used with the intention of identifying HIV exposure mode for females when sex with males is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. Twenty-nine percent of females living with HIV/AIDS and 40% of recent female HIV diagnoses are reported in the presumed heterosexual exposure mode category. The application of the presumed heterosexual exposure mode category to males is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate exposure modes that are possible for males, including sex with other men (MSM) or IDU. The CDC reports males diagnosed with HIV/AIDS who report sex with females as their only risk factor, without corresponding partner risk or HIV status information, in the NIR exposure mode category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.

**Table 1. Total number of people reported with HIV infection or AIDS<sup>1</sup> by mortality status on December 31, 2011: Western HSR, Massachusetts<sup>2</sup>**

	<b>N</b>	<b>%</b>
People Living with HIV/AIDS	2,005	57%
People Reported with HIV or AIDS who are Deceased	1,532	43%
<b>Total Number of People Reported with HIV Infection or AIDS</b>	<b>3,537</b>	<b>100%</b>

<sup>1</sup> Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/12

**Table 2. Average annual rate of HIV infection diagnosis from 2008 to 2010 and HIV/AIDS prevalence rate on 12/31/11<sup>1</sup>: Western HSR, Massachusetts<sup>2</sup>**

<b>Average annual HIV diagnosis rate from 2008–2010</b>	<b>Average rate per 100,000</b>	<b>Average annual number of HIV diagnoses</b>
Western HSR, MA	8.3	69.3
Massachusetts Total	10.3	664.7
<b>HIV/AIDS prevalence rate on 12/31/11</b>	<b>Rate per 100,000</b>	<b>Number of people living with HIV/AIDS</b>
Western HSR, MA	241.0	2,005
Massachusetts Total	277.5	18,170

<sup>1</sup> The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation.

<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/12

**Table 3. People living with HIV/AIDS<sup>1</sup>, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year<sup>2</sup>: 2001–2010, Western HSR, Massachusetts<sup>3</sup>**

<b>Year</b>	<b>HIV/AIDS Prevalence</b>	<b>Deaths among those with HIV/AIDS</b>	<b>Diagnosis of HIV Infection</b>
2001	1,532	42	124
2002	1,588	49	105
2003	1,642	52	106
2004	1,715	54	127
2005	1,769	48	100
2006	1,818	42	91
2007	1,855	42	79
2008	1,885	41	71
2009	1,904	44	63
2010	1,950	28	74

<sup>1</sup> Number of people living with HIV/AIDS on 12/31 of each year

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/12

**Table 4. People diagnosed with HIV infection from 2008–2010<sup>1</sup> and people living with HIV/AIDS on December 31, 2011 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Western HSR, Massachusetts<sup>2</sup>**

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	151	73%	1,263	63%
Female	57	27%	742	37%
Place of Birth:	N	%	N	%
US	150	72%	1,382	69%
Puerto Rico/US Dependency <sup>3</sup>	41	20%	503	25%
Non-US	17	8%	120	6%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	74	36%	621	31%
Black (non-Hispanic)	41	20%	387	19%
Hispanic/Latino	89	43%	968	48%
Asian/Pacific Islander	-- <sup>7</sup>	-- <sup>7</sup>	15	1%
Other/Undetermined <sup>4</sup>	-- <sup>7</sup>	-- <sup>7</sup>	14	1%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	80	38%	494	25%
Injection Drug Use (IDU)	31	15%	594	30%
MSM/IDU	-- <sup>7</sup>	-- <sup>7</sup>	67	3%
Heterosexual Sex	25	12%	367	18%
Other	-- <sup>7</sup>	-- <sup>7</sup>	62	3%
Total Undetermined	68	33%	421	21%
• Presumed Heterosexual Sex <sup>5</sup>	19	9%	159	8%
• Undetermined <sup>6</sup>	49	24%	262	13%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2011	
Under 13	2	1%	5	<1%
13 to 19	9	4%	16	1%
20 to 24	14	7%	45	2%
25 to 29	27	13%	59	3%
30 to 34	22	11%	108	5%
35 to 39	30	14%	150	7%
40 to 44	24	12%	258	13%
45 to 49	29	14%	422	21%
50 to 54	21	10%	400	20%
55 to 59	15	7%	273	14%
60+	15	7%	269	13%
<b>Total</b>	<b>208</b>	<b>100%</b>	<b>2,005</b>	<b>100%</b>

<sup>1</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>3</sup> Ninety-eight percent of people diagnosed with HIV infection from 2008–2010 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

<sup>4</sup> Includes American Indian/Alaska Native, other and unspecified race/ethnicity.

<sup>5</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>6</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>7</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

**Table 5. People living with HIV/AIDS on December 31, 2011 by gender and race/ethnicity: Western HSR, Massachusetts<sup>1</sup>**

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	463	37%	158	21%
Black (non-Hispanic)	222	18%	165	22%
Hispanic/Latino	560	44%	408	55%
Asian/Pacific Islander	10	1%	5	1%
<b>Total<sup>2</sup></b>	<b>1,263</b>	<b>100%</b>	<b>742</b>	<b>100%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

**Table 6. People living with HIV/AIDS on December 31, 2011 by gender and exposure mode: Western HSR, Massachusetts<sup>1</sup>**

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	494	39%	N/A	N/A
Injection drug use (IDU)	375	30%	219	30%
MSM/IDU	67	5%	N/A	N/A
Heterosexual sex	81	6%	286	39%
Other	35	3%	27	4%
Total Undetermined	211	17%	210	28%
• Presumed heterosexual sex <sup>2</sup>	N/A	N/A	159	21%
• Undetermined <sup>3</sup>	211	17%	51	7%
<b>Total</b>	<b>1,263</b>	<b>100%</b>	<b>742</b>	<b>100%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>3</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

N/A=Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

**Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Western HSR, Massachusetts<sup>1</sup>, 2001–2010<sup>2</sup>**

	Male		Female		Total
	N	%	N	%	
2001	80	65%	44	35%	124
2002	70	67%	35	33%	105
2003	68	64%	38	36%	106
2004	79	62%	48	38%	127
2005	63	63%	37	37%	100
2006	57	63%	34	37%	91
2007	54	68%	25	32%	79
2008	50	70%	21	30%	71
2009	51	81%	12	19%	63
2010	50	68%	24	32%	74

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

**Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Western HSR, Massachusetts<sup>1</sup>, 2001–2010<sup>2</sup>**

	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino		Total <sup>3</sup>
	N	%	N	%	N	%	N
2001	42	34%	22	18%	59	48%	124
2002	34	32%	20	19%	50	48%	105
2003	34	32%	20	19%	49	46%	106
2004	27	21%	37	29%	62	49%	127
2005	27	27%	23	23%	46	46%	100
2006	28	31%	16	18%	46	51%	91
2007	26	33%	17	22%	34	43%	79
2008	23	32%	17	24%	29	41%	71
2009	22	35%	14	22%	25	40%	63
2010	29	39%	10	14%	35	47%	74

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Totals include Asian/Pacific Islander, American Indian/Alaskan Native individuals, and those of other or undetermined race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

**Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: Western HSR, Massachusetts<sup>1</sup>, 2001–2010<sup>2</sup>**

	US		Puerto Rico/ US Dependency <sup>3</sup>		Non-US		Total
	N	%	N	%	N	%	N
2001	84	68%	33	27%	7	6%	<b>124</b>
2002	70	67%	22	21%	13	12%	<b>105</b>
2003	78	74%	21	20%	7	7%	<b>106</b>
2004	75	59%	36	28%	16	13%	<b>127</b>
2005	64	64%	26	26%	10	10%	<b>100</b>
2006	61	67%	21	23%	9	10%	<b>91</b>
2007	51	65%	18	23%	10	13%	<b>79</b>
2008	49	69%	17	24%	5	7%	<b>71</b>
2009	48	76%	9	14%	6	10%	<b>63</b>
2010	53	72%	15	20%	6	8%	<b>74</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

**Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Western HSR, Massachusetts<sup>1</sup>, 2001–2010<sup>2</sup>**

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX <sup>3</sup>		Undeter- mined <sup>4</sup>		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2001	31	25%	47	38%	-- <sup>5</sup>	-- <sup>5</sup>	19	15%	-- <sup>5</sup>	-- <sup>5</sup>	10	8%	14	11%	124
2002	23	22%	30	29%	-- <sup>5</sup>	-- <sup>5</sup>	22	21%	-- <sup>5</sup>	-- <sup>5</sup>	11	10%	14	13%	105
2003	26	25%	24	23%	-- <sup>5</sup>	-- <sup>5</sup>	21	20%	-- <sup>5</sup>	-- <sup>5</sup>	13	12%	16	15%	106
2004	22	17%	30	24%	-- <sup>5</sup>	-- <sup>5</sup>	24	19%	-- <sup>5</sup>	-- <sup>5</sup>	15	12%	29	23%	127
2005	26	26%	26	26%	-- <sup>5</sup>	-- <sup>5</sup>	16	16%	-- <sup>5</sup>	-- <sup>5</sup>	10	10%	21	21%	100
2006	30	33%	23	25%	-- <sup>5</sup>	-- <sup>5</sup>	9	10%	-- <sup>5</sup>	-- <sup>5</sup>	15	16%	13	14%	91
2007	26	33%	14	18%	-- <sup>5</sup>	-- <sup>5</sup>	11	14%	-- <sup>5</sup>	-- <sup>5</sup>	9	11%	18	23%	79
2008	28	39%	11	15%	-- <sup>5</sup>	-- <sup>5</sup>	9	13%	-- <sup>5</sup>	-- <sup>5</sup>	9	13%	12	17%	71
2009	26	41%	6	10%	-- <sup>5</sup>	-- <sup>5</sup>	5	8%	0	0%	-- <sup>5</sup>	-- <sup>5</sup>	22	35%	63
2010	26	35%	14	19%	-- <sup>5</sup>	-- <sup>5</sup>	11	15%	-- <sup>5</sup>	-- <sup>5</sup>	7	9%	15	20%	74

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>4</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>5</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12



**Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Western HSR, Massachusetts<sup>1</sup>, 2001–2010<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2001	37	124	30%
2002	30	105	29%
2003	31	106	29%
2004	40	127	31%
2005	38	100	38%
2006	23	91	25%
2007	29	79	37%
2008	20	71	28%
2009	19	63	30%
2010	27	74	36%

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.  
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/12

**Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: Western HSR, Massachusetts,<sup>1</sup> 2008–2010<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
<b>Gender:</b>	<b>N</b>	<b>N</b>	<b>%</b>
Male	55	151	36%
Female	11	57	19%
<b>Race/Ethnicity:</b>	<b>N</b>	<b>N</b>	<b>%</b>
White (non-Hispanic)	27	74	36%
Black (non-Hispanic)	16	41	39%
Hispanic/Latino	23	89	26%
<b>Place of Birth:</b>	<b>N</b>	<b>N</b>	<b>%</b>
US	53	150	35%
Puerto Rico/US Dependencies <sup>3</sup>	8	41	20%
Non-US	5	17	29%
<b>Total<sup>4</sup></b>	<b>66</b>	<b>208</b>	<b>32%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Ninety-eight percent of people diagnosed with HIV infection from 2008–2010 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

<sup>4</sup> Total includes Asian/Pacific Islander, American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12